

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: IRiS

Report Number: P1345973

Luminaire Tested: P3A13R409035DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345973
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-78)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R409035DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R40 optic, 3500K CCT AND, 90CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

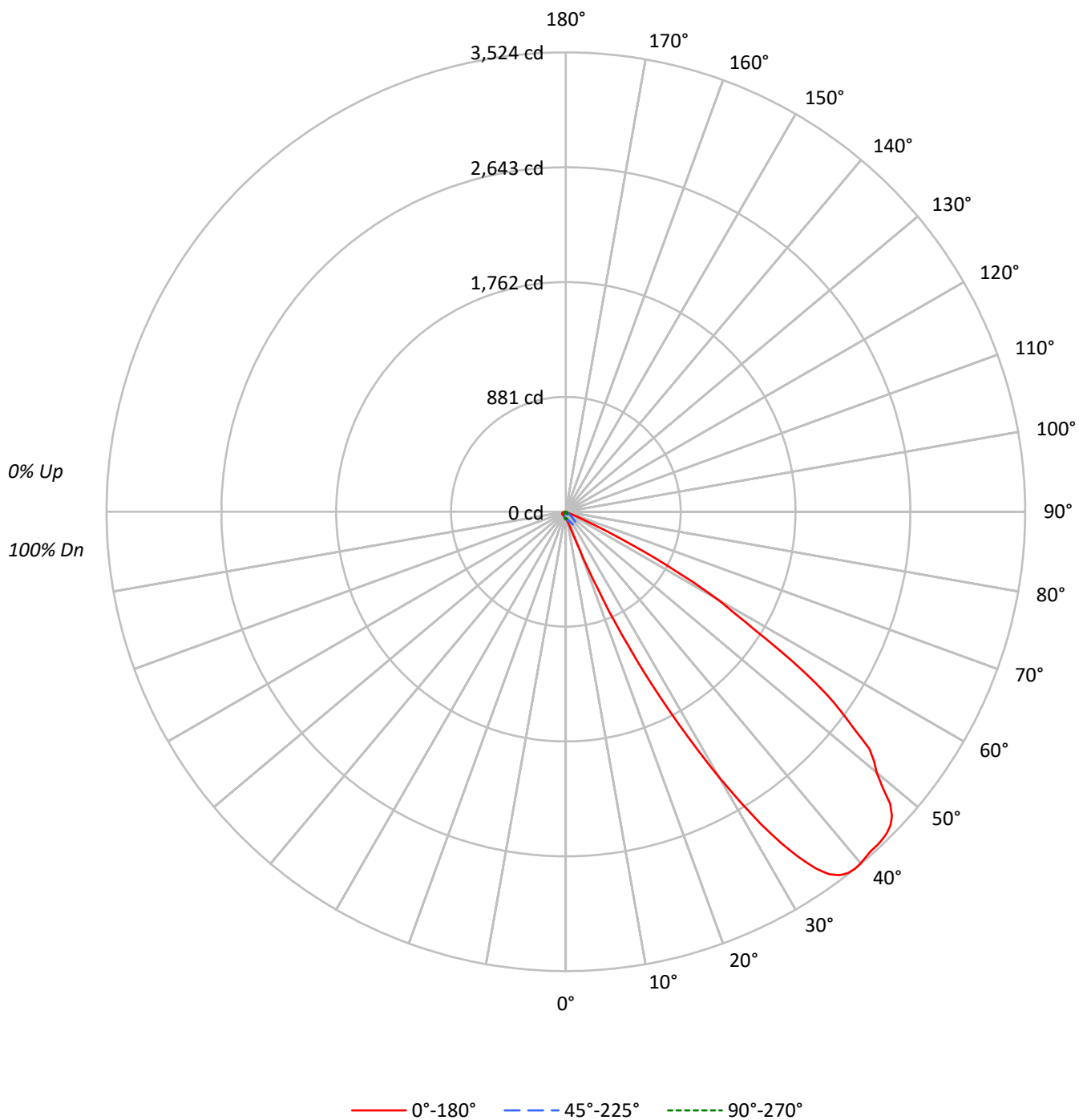
Lumens per Lamp: N/A
Luminaire Lumens: 1089.0 lumens
Efficiency: N/A
Efficacy: 74.6 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20
RC	80					70					50					30					10
RW	70	50	30	10		70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																					
0	119	119	119	119		116	116	116	116		111	111	111		106	106	106		102	102	102
1	110	106	102	99		107	104	100	97		99	97	94		96	93	91		92	90	88
2	100	93	86	81		98	91	85	80		87	82	78		84	80	76		81	78	75
3	91	81	73	66		89	79	72	66		76	70	65		73	68	64		71	66	62
4	82	70	62	55		80	69	61	54		67	59	54		64	58	53		62	57	52
5	75	62	52	46		73	60	52	45		58	51	45		56	50	44		54	49	44
6	68	54	45	38		66	53	44	38		51	43	38		50	43	37		48	42	37
7	62	48	39	32		60	47	38	32		45	37	32		44	37	31		42	36	31
8	57	42	33	27		55	42	33	27		40	32	27		39	32	27		38	31	26
9	52	38	29	23		51	37	29	23		36	28	23		35	28	23		34	27	23
10	48	34	25	20		47	33	25	20		32	25	20		31	24	20		30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	12280	12280	12280	12280	12280
5°	13647	13207	12107	11006	10786
10°	16477	14028	11133	10020	9797
15°	27015	15210	9535	8854	9081
20°	71406	17968	7934	7934	8634
25°	275363	22259	6291	7258	8468
30°	594066	29625	5064	7090	8356
35°	894173	35068	4283	6960	8566
40°	1007402	35209	3721	7156	9160
45°	1080205	27290	3411	7443	9924
50°	1061731	17057	3070	7846	10916
55°	934046	8411	3058	8793	12234
60°	591225	1754	3508	9648	13595
65°	120895	519	3632	10377	15047
70°	2565	641	3847	11540	17311
75°	2542	1694	4236	12709	19486
80°	2526	1263	5051	13891	22730
85°	2516	2516	10064	15096	25160

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 1099718 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5.2	0.5
10°-20°	17.3	1.6
20°-30°	84.6	7.8
30°-40°	275.1	25.3
40°-50°	379.3	34.8
50°-60°	264.2	24.3
60°-70°	50.1	4.6
70°-80°	9.1	0.8
80°-90°	4.2	0.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	107.1	9.8
0°-40°	382.2	35.1
0°-60°	1025.7	94.2
0°-90°	1089.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1089.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	56	56	56	56	56	
5°	62	60	55	50	49	6
15°	119	67	42	39	40	43
25°	1138	92	26	30	35	586
35°	3340	131	16	26	32	2019
45°	3483	88	11	24	32	2649
55°	2443	22	8	23	32	2088
65°	233	1	7	20	29	412
75°	3	2	5	15	23	3
85°	1	1	4	6	10	1
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0
2.5°	58.0	58.0	58.0	58.0	58.0	58.0	58.0	58.0	58.0	57.0	56.0
5°	62.0	62.0	62.0	62.0	61.0	61.0	61.0	60.0	60.0	58.0	55.0
7.5°	66.0	66.0	66.0	66.0	65.0	64.0	63.0	63.0	62.0	57.0	53.0
10°	74.0	74.0	73.0	72.0	71.0	69.0	68.0	66.0	63.0	56.0	50.0
12.5°	90.0	88.0	87.0	85.0	82.0	78.0	74.0	71.0	64.0	54.0	47.0
15°	119.0	117.0	113.0	107.0	101.0	93.0	86.0	79.0	67.0	51.0	42.0
17.5°	170.0	164.0	158.0	148.0	133.0	119.0	104.0	91.0	71.0	48.0	38.0
20°	306.0	302.0	266.0	238.0	193.0	161.0	131.0	109.0	77.0	45.0	34.0
22.5°	631.1	589.1	530.1	434.0	338.0	249.0	181.0	137.0	83.0	41.0	30.0
25°	1138.1	1072.1	945.1	760.1	561.1	397.0	262.0	179.0	92.0	37.0	26.0
27.5°	1723.2	1656.2	1459.1	1204.1	879.1	599.1	374.0	237.0	104.0	33.0	23.0
30°	2346.2	2289.2	2039.2	1686.2	1239.1	839.1	501.0	296.0	117.0	29.0	20.0
31°	2597.2	2524.2	2254.2	1878.2	1408.1	938.1	552.1	321.0	122.0	28.0	19.0
32°	2828.3	2745.3	2465.2	2062.2	1545.1	1045.1	608.1	343.0	126.0	26.0	18.0
33°	3027.3	2930.3	2660.3	2236.2	1696.2	1145.1	666.1	364.0	129.0	24.0	17.0
34°	3196.3	3112.3	2822.3	2411.2	1830.2	1241.1	723.1	385.0	131.0	23.0	16.0
35°	3340.3	3264.3	2977.3	2544.2	1961.2	1334.1	775.1	405.0	131.0	21.0	16.0
36°	3437.3	3371.3	3111.3	2680.3	2071.2	1413.1	819.1	423.0	131.0	19.0	15.0
37°	3490.3	3426.3	3199.3	2792.3	2179.2	1491.1	859.1	437.0	130.0	18.0	14.0
38°	3517.3	3461.3	3264.3	2883.3	2254.2	1547.1	894.1	448.0	129.0	16.0	14.0
39°	3524.3	3477.3	3305.3	2949.3	2327.2	1603.2	919.1	454.0	126.0	15.0	13.0
40°	3519.3	3478.3	3327.3	3008.3	2383.2	1647.2	937.1	456.0	123.0	13.0	13.0
41°	3509.3	3477.3	3343.3	3049.3	2428.2	1675.2	944.1	452.0	119.0	11.0	12.0
42°	3500.3	3465.3	3350.3	3077.3	2459.2	1689.2	943.1	444.0	113.0	10.0	12.0
43°	3500.3	3460.3	3351.3	3095.3	2474.2	1690.2	931.1	429.0	105.0	9.0	11.0
44°	3494.3	3457.3	3356.3	3107.3	2478.2	1681.2	912.1	413.0	96.0	8.0	11.0
45°	3483.3	3444.3	3355.3	3108.3	2471.2	1659.2	881.1	392.0	88.0	6.0	11.0
46°	3462.3	3427.3	3346.3	3101.3	2450.2	1627.2	844.1	371.0	79.0	5.0	10.0
47°	3420.3	3393.3	3322.3	3077.3	2418.2	1580.2	800.1	347.0	72.0	4.0	10.0
48°	3348.3	3329.3	3281.3	3024.3	2357.2	1522.1	753.1	321.0	65.0	4.0	10.0
49°	3216.3	3201.3	3173.3	2939.3	2279.2	1451.1	702.1	292.0	58.0	3.0	10.0
50°	3112.3	3096.3	3039.3	2796.3	2167.2	1361.1	646.1	263.0	50.0	2.0	9.0
51°	3043.3	3017.3	2927.3	2630.3	2004.2	1241.1	585.1	234.0	42.0	2.0	9.0
52°	2956.3	2917.3	2805.3	2481.2	1855.2	1121.1	519.0	205.0	37.0	2.0	9.0
53°	2774.3	2760.3	2649.3	2321.2	1706.2	1006.1	451.0	181.0	32.0	2.0	9.0
54°	2615.2	2594.2	2443.2	2099.2	1544.1	878.1	381.0	160.0	27.0	2.0	9.0
55°	2443.2	2402.2	2268.2	1912.2	1354.1	760.1	314.0	138.0	22.0	2.0	8.0
56°	2226.2	2190.2	2046.2	1712.2	1179.1	640.1	263.0	113.0	17.0	2.0	8.0
57°	1962.2	1929.2	1818.2	1466.1	997.1	523.0	214.0	91.0	13.0	2.0	8.0
58°	1707.2	1670.2	1543.1	1230.1	805.1	415.0	179.0	74.0	10.0	2.0	8.0
59°	1511.1	1461.1	1297.1	1033.1	630.1	315.0	142.0	59.0	7.0	2.0	8.0
60°	1348.1	1307.1	1137.1	860.1	494.0	232.0	105.0	45.0	4.0	2.0	8.0
62.5°	781.1	770.1	617.1	443.0	233.0	108.0	52.0	21.0	2.0	3.0	8.0
65°	233.0	203.0	158.0	94.0	60.0	36.0	19.0	7.0	1.0	3.0	7.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	7.0	7.0	7.0	7.0	7.0	7.0	4.0	2.0	1.0	3.0	7.0
70°	4.0	3.0	3.0	3.0	3.0	2.0	2.0	1.0	1.0	3.0	6.0
72.5°	3.0	3.0	3.0	3.0	2.0	2.0	2.0	1.0	2.0	3.0	5.0
75°	3.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	2.0	3.0	5.0
77.5°	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	2.0	3.0	5.0
80°	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	3.0	4.0
82.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	3.0	4.0
85°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	3.0	4.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	3.0	3.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
0°	56.0	56.0	56.0	56.0
2.5°	54.0	53.0	52.0	52.0
5°	52.0	50.0	50.0	49.0
7.5°	49.0	47.0	47.0	47.0
10°	46.0	45.0	45.0	44.0
12.5°	42.0	42.0	42.0	42.0
15°	39.0	39.0	40.0	40.0
17.5°	35.0	36.0	38.0	39.0
20°	32.0	34.0	36.0	37.0
22.5°	30.0	32.0	35.0	36.0
25°	27.0	30.0	34.0	35.0
27.5°	25.0	29.0	32.0	34.0
30°	23.0	28.0	31.0	33.0
31°	23.0	27.0	31.0	33.0
32°	22.0	26.0	31.0	32.0
33°	22.0	26.0	31.0	32.0
34°	21.0	26.0	30.0	32.0
35°	21.0	26.0	30.0	32.0
36°	20.0	25.0	30.0	32.0
37°	20.0	25.0	30.0	32.0
38°	19.0	25.0	30.0	32.0
39°	19.0	25.0	30.0	32.0
40°	19.0	25.0	30.0	32.0
41°	18.0	25.0	30.0	32.0
42°	18.0	25.0	30.0	32.0
43°	18.0	24.0	30.0	32.0
44°	18.0	24.0	30.0	32.0
45°	17.0	24.0	30.0	32.0
46°	17.0	24.0	30.0	32.0
47°	17.0	24.0	30.0	32.0
48°	17.0	24.0	30.0	32.0
49°	17.0	24.0	30.0	32.0
50°	16.0	23.0	30.0	32.0
51°	16.0	23.0	30.0	32.0
52°	16.0	23.0	30.0	32.0
53°	16.0	23.0	30.0	32.0
54°	15.0	23.0	30.0	32.0
55°	15.0	23.0	30.0	32.0
56°	15.0	23.0	30.0	31.0
57°	15.0	23.0	29.0	31.0
58°	15.0	22.0	29.0	31.0
59°	15.0	22.0	29.0	31.0
60°	15.0	22.0	29.0	31.0
62.5°	14.0	22.0	28.0	30.0
65°	13.0	20.0	28.0	29.0



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	13.0	19.0	26.0	28.0
70°	12.0	18.0	25.0	27.0
72.5°	10.0	17.0	23.0	25.0
75°	9.0	15.0	21.0	23.0
77.5°	8.0	13.0	19.0	20.0
80°	7.0	11.0	16.0	18.0
82.5°	5.0	8.0	13.0	14.0
85°	4.0	6.0	9.0	10.0
87.5°	3.0	3.0	5.0	5.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)